

Process Specification for Electroless Nickel Plating

Engineering Directorate

Structural Engineering Division



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National Aeronautics and
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Lyndon B. Johnson Space Center
Houston, Texas

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REVISIONS		
VERSION	CHANGES	DATE
--	Original version	5/14/1996
A	Reviewed and update for accuracy; Author changed	7/21/1999
B	General changes due to reorganization (changed EM to ES). Updated references in 6.0 and updated section 3.0. Removed reference standard SAE AMS 2405B. Updated SAE AMS 2404 to revision E.	12/14/2005
C	Minor format changes	3/26/2010
D	Updated SAE AMS 2404E to Revision F	7/12/2012

Verify that this is the correct version before use.

1.0 PURPOSE

This process specification establishes requirements for electroless nickel plating in the manufacture of JSC flight hardware.

2.0 SCOPE

This process specification applies to electroless nickel plating.

3.0 USAGE

This process specification shall be called out on the engineering drawing by using a drawing note that identifies the process specification to be used. For example:

<p>ELECTROLESS NICKEL PLATE PER NASA/JSC PRC-5007</p>
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The standard electroless nickel coating specifications will be used for all electroless nickel plating processes. If a low-phosphorus, electroless nickel coating is required, it must be identified on the engineering drawing; and the phosphorus content range of the deposit must be specified.

3.1 WORK INSTRUCTIONS

Work instructions shall be generated for implementing this process specification. The work instructions shall contain sufficient detail to ensure that the manufacturing process produces consistent, repeatable products that comply with this specification.

4.0 DEFINITIONS

None.

5.0 SAFETY PRECAUTIONS AND WARNING NOTES

As specified in SAE AMS 2404F.

6.0 REFERENCES

The following references were used to develop this process specification:

SOP-007.1 Preparation and Revision of Process Specifications

JSC 8500C Engineering Drawing System Requirements

The following document is called out as an extension of the requirements given in this specification:

SAE AMS 2404F Electroless Nickel Plating

7.0 MATERIALS REQUIREMENTS

As specified in SAE AMS 2404F

8.0 PERSONNEL TRAINING AND CERTIFICATION

All electroless nickel plating operations shall be performed by operators who have been trained for this process and have successfully performed a plating qualification to this specification.

9.0 PROCEDURE

All electroless nickel plating operations shall be conducted in accordance with SAE AMS 2404F.